

## RESIGHTINGS OF MARKED AMERICAN OYSTERCATCHERS BANDED AS CHICKS

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**ABSTRACT.**—Since 2000, we have been banding American Oystercatcher (*Haematopus palliatus*) chicks at Cape Lookout and Cape Hatteras national seashores as part of a long-term demographic study. Between 2000 and 2002, we banded 23 chicks. We report on resightings of eight chicks that returned to the Outer Banks of North Carolina in the summers of 2003 and 2004. These are the first records of American Oystercatcher chicks resighted near their natal areas in their 2nd and 3rd years. The 3-year-old birds appeared to be paired and acted territorial, whereas the 2nd-year birds were observed alone or in groups and did not exhibit territorial behavior. Our observations suggest that the American Oystercatcher's life history is similar to that of the Eurasian Oystercatcher (*Haematopus ostralegus*). Received 17 November 2004, accepted 1 July 2005.

The American Oystercatcher (*Haematopus palliatus*) is a species of concern (Brown et al. 2001, Davis et al. 2001) that breeds along the eastern coast of the United States (Nol and Humphrey 1994). It is listed in the U.S. Shorebird Conservation Plan as highly imperiled due to habitat loss and because populations are apparently declining in the southeastern U.S. (Brown et al. 2001, Davis et al. 2001). By 1900, the species had been eliminated from regions north of Virginia, primarily due to hunting (Nol and Humphrey 1994). American Oystercatchers have been steadily expanding northward since the 1950s, and the first successful breeding record of oystercatchers in Nova Scotia was in 1997 (Nol and Humphrey 1994, Mawhinney and Benedict 1999, Davis et al. 2001). They are now beginning to occupy new habitats for breeding, such as salt marshes and dredge spoil islands (Frohling 1965, McNair 1988, Humphrey 1990, Toland 1992, Nol and Humphrey 1994, Davis et al. 2001, McGowan et al. 2005). Little is known about dispersal after fledging or about survival in the first 2 years, and these demographic parameters could be important for population viability (Davis 1999). Chicks banded during previous studies in Massachusetts and Virginia (Nol and Humphrey 1994) were never seen after fledging.

As part of a long-term study of oystercatcher demography, we have been banding American Oystercatcher adults and chicks since 2000 at Cape Hatteras and Cape Lookout national seashores in North Carolina (Godfrey and Godfrey 1973). The national seashores are composed of six barrier islands along the North Carolina coast (36° 2' N, 75° 32' W to 34° 35' N, 76° 32' W), including Bodie Island (at the northern end), Hatteras Island, Ocracoke Island, North Core Banks, South Core Banks, and Shackleford Banks (at the southern end). At Cape Lookout National Seashore, a mile-marker system denotes locations within the park; mile 0.0 is located at the northern end of North Core Banks at Ocracoke Inlet.

From 2000 to 2002, we banded 23 chicks between 10 and 25 days after hatching. In 2000, we used federal stainless steel bands and engraved colored aluminum bands to individually mark birds, but the colors faded quickly and we could not identify individual birds without recapturing them. In 2001 and 2002, we marked birds with a federal stainless steel band and a unique combination of colored wrap-around plastic bands. Here, we report on birds banded as chicks that we recaptured or observed in their natal area as 2- and 3-year-olds. These observations were incidental to a separate, long-term study of American Oystercatcher nesting success, and sightings of these birds were recorded opportunistically as we searched for, and checked, nests from ATVs and trucks.

On 4 April 2003, we trapped a territorial adult oystercatcher at mile marker 8.5 on North Core Banks using a noose carpet trap and a decoy (McGowan and Simons 2005).

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This bird was originally banded as a chick on 8 June 2000 on South Core Banks (~25 km to the south). The bird and its presumed mate vigorously defended a territory from a neighboring pair of oystercatchers. The recaptured bird was not seen again during the breeding season and we suspect that it abandoned its territory due to disturbance associated with trapping it.

On 3 June 2003, we observed a 2nd-year bird with three unbanded birds at mile 3.5 on North Core Banks; this bird was originally banded as a chick on 1 July 2001 at Ocracoke Inlet (~5 km away). We observed the same individual again, also with three unbanded birds, on 15 June 2003 at mile 2.4 on North Core Banks. During late May and early June of 2004, this same bird was observed on numerous occasions defending a territory with an unbanded mate near mile marker 4.5 on North Core Banks. On 22 June, it was seen in the same location with a different, banded bird. On 24 June, we observed this bird with three other unbanded birds, and it was no longer exhibiting territorial behavior. We found no evidence of breeding, but its earlier territorial behavior indicated that it might breed on North Core Banks within 1–2 years (Nol and Humphrey 1994, Ens et al. 1996).

During the summer of 2004, we observed six additional 2nd-year birds that were banded as chicks during the summer of 2002 at Cape Lookout and Cape Hatteras national seashores (Table 1). Four of the six birds were seen within 10 km of their hatching site (Table 1). One of those six birds—banded on 11 June 2002 as a chick just north of Buxton Village at Cape Hatteras National Seashore—was observed many times during the winters and summers of 2003 and 2004 at Little Estero Lagoon, near Ft. Myers Beach on the gulf coast of Florida (26° 26' N, 81° 57' W); it was last seen at Little Estero Lagoon on 26 May 2004. On 28 June 2004, that same individual was resighted at Pea Island National Wildlife Refuge, at the northern end of Hatteras Island, and was seen throughout July of 2004 at many locations in the northern part of Hatteras Island.

The 2- and 3-year-old birds that we observed were not breeding. These observations support the notion that American Oystercatchers are long-lived birds with delayed maturation

(Nol and Humphrey 1994), with a life history similar to that of the closely related and extensively studied Eurasian Oystercatcher (*Haematopus ostralegus*; Ens et al. 1996, Bruinzeel 2004). The birds observed as 3-year-olds were apparently attempting to acquire territories and establish pair bonds with a mate. We observed both 3-year-olds exhibiting territorial interactions with other birds, and both were observed with a single other individual (Table 1). None of the 2nd-year birds exhibited territorial behavior or appeared to be paired; rather, they often were seen in groups of three or more birds (Table 1). These 2nd-year birds exhibited behaviors similar to those of subadult Eurasian Oystercatchers that Bruinzeel (2004) called "intruders" or "aggressive club-birds," which move about the breeding grounds alone or in small groups of young birds, gathering information on territory availability and quality. At this point, we cannot report on dispersal distances because we are uncertain whether birds that we observed will return to breed at the locations where we resighted them; however, our observations suggest that American Oystercatchers exhibit strong natal philopatry. Dispersal during the pre-breeding stage probably explains the northward expansion of the American Oystercatcher's breeding range over the last 50 years (Frohling 1965, McNair 1988, Humphrey 1990, Toland 1992, Nol and Humphrey 1994, Mawhinney and Benedict 1999, McGowan et al. 2005). We observed birds moving up to 57 km, and to different islands, from their hatching sites.

Our observations represent the first records of American Oystercatcher chicks to be resighted near their natal territories within 2–3 years of hatching: 34% of the chicks we banded between 2000 and 2002 have been resighted as 2- or 3-year-olds. Although we cannot calculate survival rates on the basis of our opportunistic observations, these relatively high rates of resightings and recaptures bode well for the species and for future analyses of annual survival and dispersal. A better understanding of oystercatcher demography and dispersal is important for safeguarding the future of this species along the eastern coast of the United States (Davis 1999, Davis et al. 2001).

TABLE 1. Original capture dates and locations of eight American Oystercatchers and subsequent capture or resighting dates and locations in North Carolina, 2000–2004. We report national seashore mile markers as reference locations (GPS data were not collected).

Individual	Capture date	Capture location <sup>a</sup>	Recapture date(s)	Recapture location <sup>a</sup>	Distance from initial capture <sup>b</sup>	No. in group <sup>c</sup>
805–60047	6 Aug 2000	South Core Banks	4 Apr 2003	Mile 8.2, North Core Banks	≥25 km	2
805–60059	1 Jul 2001	Mile 0.0, North Core Banks	3 Jun 2003	Mile 3.5, North Core Banks	5.6 km	4
			15 Jun 2003	Mile 2.4, North Core Banks	3.9 km	4
			May–Jun 2004	Mile 4.5, North Core Banks	7.2 km	2
805–60085	1 Jun 2002	Mile 5.9, North Core Banks	28 Sep 2004	Shackleford Banks	57 km	1
805–60088	11 Jun 2002	Buxton, Hatteras Island	28 Jun 2004	Pea Island NWR	42 km	1
805–60091	14 Jun 2002	Ocracoke Island	1 Jul 2004	Mile 6.0, North Core Banks	≥11.2 km	2
			15 Jul 2004	Mile 4.5, North Core Banks	≥8.9 km	2
805–60093	16 Jun 2002	Mile 9.6, North Core Banks	24 Jun 2004	Mile 11.1, North Core Banks	2.4 km	—
			30 Jun 2004	Mile 8.0, North Core Banks	2.6 km	5
805–60100	29 Jun 2002	Mile 9.6, North Core Banks	30 Jun 2004	Mile 8.0, North Core Banks	2.6 km	2
975–85202	1 Jul 2002	Mile 2.3, North Core Banks	10 Jun 2004	Mile 7.0, North Core Banks	7.6 km	3
			11 Jun 2004	Mile 5.0, North Core Banks	4.3 km	—
			22 Jun 2004	Mile 4.5, North Core Banks	3.5 km	4
			24 Jun 2004	Mile 5.5, North Core Banks	5.1 km	—
			1 Jul 2004	Mile 8.0, North Core Banks	9.2 km	3

<sup>a</sup> For some birds, exact locations and mile markers were not recorded; instead, we report the island or general location where captured or resighted.

<sup>b</sup> Approximate distances were calculated using the difference in mile markers and converting to kilometers. Where mile markers were not recorded for captures or recaptures, we report the minimum distance between islands. These distances do not represent dispersal distances, because the breeding or settlement status of these birds is uncertain.

<sup>c</sup> Group size in which each individual was observed. Dashes indicate that no information was recorded.

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